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10/629,768	07/30/2003	Akira Katou	1614.1354	7690

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EXAMINER	
DWIVEDI, MAHESH H	

ART UNIT	PAPER NUMBER
2168	

DATE MAILED: 09/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/629,768	KATOU ET AL.	
	Examiner	Art Unit	
	Mahesh H. Dwivedi	2168	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 July 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Did we receive?

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *07/30/2003*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 07/30/2003 has been received, entered into the record, and considered. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 1 and 6 are directed towards a system. However, all of the elements claimed could be reasonably interpreted in light of the disclosure by an ordinary artisan as being software alone, and thus is directed to software per se, which is non-statutory. In order for such a software claim to be statutory, it must be claimed in combination with an appropriate medium and/or hardware such as a memory or processor to establish a statutory category of invention and enable any functionality to realized.

Claims 2-5 and 7-9 are rejected for incorporating the deficiencies of claims 1 and 6.

To expedite a complete examination of the instant application, the claims rejected under 35 U.S.C. 101 (nonstatutory) above are further rejected as set forth below in anticipation of applicant amending these claims to place them within the four categories of invention.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-3, 5-8, 10-13, 15-18, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Suzuki et al.** (U.S. Patent 7,047,237) and in view of **Weinberg et al.** (U.S. Patent 6,144,962).

7. Regarding claim 1, **Suzuki** teaches a system comprising:

A) a storage section to store file information in units of generations (Suzuki, Column 3, lines 59-67-Column 4, lines 1-13, Figure 1);

B) an inter-file correspondence table to store corresponding relationships of the file information stored in the storage, including generation information (Suzuki, Column 9, lines 61-67-Column 10, lines 1-9, Figures 3A-3B, 5, and 7); and

C) a unit to refer to the inter-file correspondence table to display relationships of the file information corresponding to the icon data (Suzuki, Column 9, lines 61-67-Column 10, lines 1-9; Figures 3A-3B, 5, and 7).

The examiner notes that **Suzuki** teaches **"a storage section to store file information in units of generations"** as "The accessory management system 2, the CAD system 3 and parts list system 4 respectively include databases for the part management to constitute a database system" (Column 4, lines 8-10). The examiner further notes that **Suzuki** teaches **"an inter-file correspondence table to store**

corresponding relationships of the file information stored in the storage, including generation information" as "The parts configuration field 81 depicts a part configuration tree representative of the hierarchical association of the items and parts" (Column 9, lines 64-67). The examiner further notes that Figures 3A-3B and 5 of **Suzuki** clearly show tables that depict relationships among automobile parts within a greater system. The examiner further notes that **Suzuki** teaches **"a unit to refer to the inter-file correspondence table to display relationships of the file information corresponding to the icon data"** as "The parts configuration field 81 depicts a part configuration tree representative of the hierarchical association of the items and parts" (Column 9, lines 64-67). The examiner further notes that Figure 7 of **Suzuki** clearly shows a hierarchical tree structure displaying the relationships amongst the various parts of the CAD product.

Suzuki does not explicitly teach:

D) an icon storage to store icon data corresponding to the file information; and

E) a unit to refer to the icon storage and to display icon data of the file information stored in the storage section in units of generations.

Weinberg, however, teaches **"an icon storage to store icon data corresponding to the file information"** as "A recursive layout method is then applied which uses the parent-child node relationships, as such relationships exist within the tree, to spatially position the nodes (represented as respective icons within the map)" (Column 2, lines 37-41) and "As generally illustrated by FIGS. 3 and 4, different icons are used to represent the different URL types when the nodes are viewed in a

sufficiently zoomed-in mode" (Column 8, lines 51-53, Figures 3-4) and **"a unit to refer to the icon storage and to display icon data of the file information stored in the storage section in units of generations"** as "A recursive layout method is then applied which uses the parent-child node relationships, as such relationships exist within the tree, to spatially position the nodes (represented as respective icons within the map)" (Column 2, lines 37-41), "As generally illustrated by FIGS. 3 and 4, different icons are used to represent the different URL types when the nodes are viewed in a sufficiently zoomed-in mode" (Column 8, lines 51-53, Figures 3-4), and "FIG. 21 illustrates a screen display...can selectively display the following: new URLs and links, modified URLs, deleted URLs and links, and unmodified URLs and links" (Column 30, lines 28-38).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Weinberg's** would have allowed **Suzuki's** to provide a method for improving graphical navigation through the visualization of icons, as noted by **Weinberg** (Column 1, lines 46-60).

Regarding claim 2, **Suzuki** further teaches a system comprising:

A) an input controller to detect an input to the CAD generation management system (Suzuki, Column 7, lines 65-67-Column 8, lines 1-11, Column 9, lines 50-54, Column 10, lines 50-61, Figure 1); and

B) said unit displaying the relationships of selected icon data with emphasis when the input controller detects an input selecting the selected icon data from the displayed icon data (Suzuki, Column 9, lines 64-67-Column 10, lines 1-9, Figure 7).

The examiner notes that **Suzuki** teaches **"an input controller to detect an input to the CAD generation management system"** as "the CAD system 3 is composed of a main system 3-1 and an input output unit 3-2...to produce a part drawing data on parts included in automobiles in response to operation of the user" (Column 7, lines 65-67-Column 8, lines 1-4, Figure 1). The examiner further notes that **Suzuki** teaches **"said unit displaying the relationships of selected icon data with emphasis when the input controller detects an input selecting the selected icon data from the displayed icon data"** as "The parts configuration field 81 depicts a part configuration tree representative of the hierarchical association of the items and parts" (Column 9, lines 64-67). The examiner further notes that Figures 3A-3B and 5 of **Suzuki** clearly show tables that depict relationships among automobile parts within a greater system. The examiner further notes that it is common knowledge that hierarchical trees expand/collapse when users clicks on various twistie icons to view a complete branch.

Regarding claim 3, **Suzuki** further teaches a system comprising:

A) wherein the unit displays the relationships of the file information corresponding to the icon data by lines connecting related icon data (Suzuki, Column 9, lines 64-67-Column 10, lines 1-9, Figure 7).

The examiner notes that **Suzuki** teaches **"wherein the unit displays the relationships of the file information corresponding to the icon data by lines connecting related icon data"** as "The parts configuration field 81 depicts a part configuration tree representative of the hierarchical association of the items and parts" (Column 9, lines 64-67). The examiner further notes that Figure 7 of **Suzuki** clearly shows lines that relate various parts in a tree structure.

Regarding claim 5, **Suzuki** further teaches a system comprising:

A) means for acquiring a CAD program and/or the file information via one or more networks (Suzuki, Column 3, lines 59-67-Column 4, lines 1-13, Figure 1).

The examiner notes that **Suzuki** teaches **"means for acquiring a CAD program and/or the file information via one or more networks"** as "Conventional computer systems, such as workstations...are interactively connected to each other through the network 5" (Column 3, lines 62-67, Figure 1).

Regarding claim 6, **Suzuki** teaches a system comprising:

A) a first storage to store font information indicating generation information (Suzuki, Column 9, lines 61-67-Column 10, lines 1-9, Figures 3A-3B, 5, and 7);

B) a third storage to store the generation information of the file information (Suzuki, Column 9, lines 61-67-Column 10, lines 1-9, Figures 3A-3B, 5, and 7); and

C) a unit to refer to the generation information stored in the third storage in response to an instruction to display generation information of target file information (Suzuki, Column 9, lines 61-67-Column 10, lines 1-9, Figures 3A-3B, 5, and 7).

The examiner notes that **Suzuki** teaches **"a first storage to store font information indicating generation information"** as "The status field 80 depicts status of progress in designing each of the parts" (Column 9, lines 62-63). The examiner further notes that status information fonts of Suzuki each have a font letter designated to concept stage (see c), a designing stage (see d), and a checking CAD figure (see f). The examiner further notes that **Suzuki** teaches **"a third storage to store the generation information of the file information"** "The status field 80 depicts status of progress in designing each of the parts" (Column 9, lines 62-63). The examiner further notes that status information fonts of Suzuki each have a font letter designated to concept stage (see c), a designing stage (see d), and a checking CAD figure (see f). The examiner further notes that **Suzuki** teaches **"a unit to refer to the generation information stored in the third storage in response to an instruction to display generation information of target file information"** as "The parts configuration field 81 depicts a part configuration tree representative of the hierarchical association of the items and parts" (Column 9, lines 64-67). The examiner further notes that Figure 7 of **Suzuki** clearly shows a hierarchical tree structure displaying the relationships amongst the various parts of the CAD product.

Suzuki does not explicitly teach:

D) a second storage to store icon data indicating file information; and

E) a unit to create and display the icon data related to the generation information to be displayed by combining the font information stored in the first storage and the icon data stored in the second storage.

Weinberg, however, teaches **"a second storage to store icon data indicating file information"** as "A recursive layout method is then applied which uses the parent-child node relationships, as such relationships exist within the tree, to spatially position the nodes (represented as respective icons within the map)" (Column 2, lines 37-41) and "As generally illustrated by FIGS. 3 and 4, different icons are used to represent the different URL types when the nodes are viewed in a sufficiently zoomed-in mode" (Column 8, lines 51-53, Figures 3-4) and **"a unit to create and display the icon data related to the generation information to be displayed by combining the font information stored in the first storage and the icon data stored in the second storage"** as "A recursive layout method is then applied which uses the parent-child node relationships, as such relationships exist within the tree, to spatially position the nodes (represented as respective icons within the map)" (Column 2, lines 37-41), "As generally illustrated by FIGS. 3 and 4, different icons are used to represent the different URL types when the nodes are viewed in a sufficiently zoomed-in mode" (Column 8, lines 51-53, Figures 3-4), and "FIG. 21 illustrates a screen display...can selectively display the following: new URLs and links, modified URLs, deleted URLs and links, and unmodified URLs and links" (Column 30, lines 28-38).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching

Weinberg's would have allowed **Suzuki's** to provide a method for improving graphical navigation through the visualization of icons, as noted by **Weinberg** (Column 1, lines 46-60).

Regarding claim 7, **Suzuki** further teaches a system comprising:

A) an input controller to detect an input to the CAD generation management system, including the instruction (Suzuki, Column 7, lines 65-67-Column 8, lines 1-11, Column 9, lines 50-54, Column 10, lines 50-61, Figure 1); and

B) said unit displaying the relationships of selected icon data with emphasis when the input controller detects an input selecting the selected icon data from the displayed icon data (Suzuki, Column 9, lines 64-67-Column 10, lines 1-9, Figure 7).

The examiner notes that **Suzuki** teaches **"an input controller to detect an input to the CAD generation management system, including the instruction"** as "the CAD system 3 is composed of a main system 3-1 and an input output unit 3-2...to produce a part drawing data on parts included in automobiles in response to operation of the user" (Column 7, lines 65-67-Column 8, lines 1-4, Figure 1). The examiner further notes that **Suzuki** teaches **"said unit displaying the relationships of selected icon data with emphasis when the input controller detects an input selecting the selected icon data from the displayed icon data"** as "The parts configuration field 81 depicts a part configuration tree representative of the hierarchical association of the items and parts" (Column 9, lines 64-67). The examiner further notes that Figures 3A-3B and 5 of **Suzuki** clearly show tables that depict relationships among automobile

parts within a greater system. The examiner further notes that it is common knowledge that hierarchical trees expand/collapse when users clicks on various twistie icons to view a complete branch.

Regarding claim 8, **Suzuki** further teaches a system comprising:

A) wherein the unit displays the relationships of the file information corresponding to the icon data by lines connecting related icon data (Suzuki, Column 9, lines 64-67-Column 10, lines 1-9, Figure 7).

The examiner notes that **Suzuki** teaches **"wherein the unit displays the relationships of the file information corresponding to the icon data by lines connecting related icon data"** as "The parts configuration field 81 depicts a part configuration tree representative of the hierarchical association of the items and parts" (Column 9, lines 64-67). The examiner further notes that Figure 7 of **Suzuki** clearly shows lines that relate various parts in a tree structure.

Regarding claim 10, **Suzuki** further teaches a system comprising:

A) means for acquiring a CAD program and/or the file information via one or more networks (Suzuki, Column 3, lines 59-67-Column 4, lines 1-13, Figure 1).

The examiner notes that **Suzuki** teaches **"means for acquiring a CAD program and/or the file information via one or more networks"** as "Conventional computer systems, such as workstations...are interactively connected to each other through the network 5" (Column 3, lines 62-67, Figure 1).

Regarding claim 11, **Suzuki** teaches a computer-readable storage medium comprising:

A) a procedure to cause the computer to store file information in a storage in units of generations (Suzuki, Column 3, lines 59-67-Column 4, lines 1-13, Figure 1);

B) a procedure to cause the computer to store corresponding relationships of the file information stored in the storage, including generation information, in an inter-file correspondence table (Suzuki, Column 9, lines 61-67-Column 10, lines 1-9, Figures 3A-3B, 5, and 7); and

C) a control procedure to cause the computer to refer to the inter-file correspondence table to display relationships of the file information corresponding to the icon data (Suzuki, Column 9, lines 61-67-Column 10, lines 1-9, Figures 3A-3B, 5, and 7).

The examiner notes that **Suzuki** teaches **"a procedure to cause the computer to store file information in a storage in units of generations"** as "The accessory management system 2, the CAD system 3 and parts list system 4 respectively include databases for the part management to constitute a database system" (Column 4, lines 8-10). The examiner further notes that **Suzuki** teaches **"a procedure to cause the computer to store corresponding relationships of the file information stored in the storage, including generation information, in an inter-file correspondence table"** as "The parts configuration field 81 depicts a part configuration tree representative of the hierarchical association of the items and parts" (Column 9, lines 64-67). The examiner further notes that Figures 3A-3B and 5 of **Suzuki** clearly show

tables that depict relationships among automobile parts within a greater system. The examiner further notes that **Suzuki** teaches **"a control procedure to cause the computer to refer to the inter-file correspondence table to display relationships of the file information corresponding to the icon data"** as "The parts configuration field 81 depicts a part configuration tree representative of the hierarchical association of the items and parts" (Column 9, lines 64-67). The examiner further notes that Figure 7 of **Suzuki** clearly shows a hierarchical tree structure displaying the relationships amongst the various parts of the CAD product.

Suzuki does not explicitly teach:

D) a procedure to cause the computer to store icon data corresponding to the file information in an icon storage; and

E) a control procedure to cause the computer to refer to the icon storage and to display icon data of the file information stored in the storage section in units of generations.

Weinberg, however, teaches **"a procedure to cause the computer to store icon data corresponding to the file information in an icon storage"** as "A recursive layout method is then applied which uses the parent-child node relationships, as such relationships exist within the tree, to spatially position the nodes (represented as respective icons within the map)" (Column 2, lines 37-41) and "As generally illustrated by FIGS. 3 and 4, different icons are used to represent the different URL types when the nodes are viewed in a sufficiently zoomed-in mode" (Column 8, lines 51-53, Figures 3-4) and **"a control procedure to cause the computer to refer to the icon storage and to display icon data of the file information stored in the storage section in units of**

generations" as "A recursive layout method is then applied which uses the parent-child node relationships, as such relationships exist within the tree, to spatially position the nodes (represented as respective icons within the map)" (Column 2, lines 37-41), "As generally illustrated by FIGS. 3 and 4, different icons are used to represent the different URL types when the nodes are viewed in a sufficiently zoomed-in mode" (Column 8, lines 51-53, Figures 3-4), and "FIG. 21 illustrates a screen display...can selectively display the following: new URLs and links, modified URLs, deleted URLs and links, and unmodified URLs and links" (Column 30, lines 28-38).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Weinberg's** would have allowed **Suzuki's** to provide a method for improving graphical navigation through the visualization of icons, as noted by **Weinberg** (Column 1, lines 46-60).

Regarding claim 12, **Suzuki** further teaches a computer-readable storage medium comprising:

A) an input procedure to cause the computer to detect an input to the computer (Suzuki, Column 7, lines 65-67-Column 8, lines 1-11, Column 9, lines 50-54, Column 10, lines 50-61, Figure 1); and

B) said control procedure causing the computer to display the relationships of selected icon data with emphasis when the input controller detects an input selecting the

selected icon data from the displayed icon data (Suzuki, Column 9, lines 64-67-Column 10, lines 1-9, Figure 7).

The examiner notes that **Suzuki** teaches **"an input procedure to cause the computer to detect an input to the computer"** as "the CAD system 3 is composed of a main system 3-1 and an input output unit 3-2...to produce a part drawing data on parts included in automobiles in response to operation of the user" (Column 7, lines 65-67-Column 8, lines 1-4, Figure 1). The examiner further notes that **Suzuki** teaches **"said control procedure causing the computer to display the relationships of selected icon data with emphasis when the input controller detects an input selecting the selected icon data from the displayed icon data"** as "The parts configuration field 81 depicts a part configuration tree representative of the hierarchical association of the items and parts" (Column 9, lines 64-67). The examiner further notes that Figures 3A-3B and 5 of **Suzuki** clearly show tables that depict relationships among automobile parts within a greater system. The examiner further notes that it is common knowledge that hierarchical trees expand/collapse when users clicks on various twistie icons to view a complete branch.

Regarding claim 13, **Suzuki** further teaches a computer-readable storage medium comprising:

A) wherein the control procedure causes the computer to display the relationships of the file information corresponding to the icon data by lines connecting related icon data (Suzuki, Column 9, lines 64-67-Column 10, lines 1-9, Figure 7).

The examiner notes that **Suzuki** teaches **"wherein the control procedure causes the computer to display the relationships of the file information corresponding to the icon data by lines connecting related icon data"** as "The parts configuration field 81 depicts a part configuration tree representative of the hierarchical association of the items and parts" (Column 9, lines 64-67). The examiner further notes that Figure 7 of **Suzuki** clearly shows lines that relate various parts in a tree structure.

Regarding claim 15, **Suzuki** further teaches a computer-readable storage medium comprising:

A) wherein said computer program further comprises: a procedure to cause the computer to acquire a CAD program and/or the file information via one or more networks (Suzuki, Column 3, lines 59-67-Column 4, lines 1-13, Figure 1).

The examiner notes that **Suzuki** teaches **"wherein said computer program further comprises: a procedure to cause the computer to acquire a CAD program and/or the file information via one or more networks"** as "Conventional computer systems, such as workstations...are interactively connected to each other through the network 5" (Column 3, lines 62-67, Figure 1).

Regarding claim 16, **Suzuki** teaches a computer-readable storage medium comprising:

A) a procedure to cause the computer to store font information indicating generation information in a first storage (Suzuki, Column 9, lines 61-67-Column 10, lines 1-9, Figures 3A-3B, 5, and 7);

B) a procedure to cause the computer to store the generation information of the file information in a third storage (Suzuki, Column 9, lines 61-67-Column 10, lines 1-9, Figures 3A-3B, 5, and 7); and

C) a control procedure to cause the computer to refer to the generation information stored in the third storage in response to an instruction to display generation information of target file information (Suzuki, Column 9, lines 61-67-Column 10, lines 1-9, Figures 3A-3B, 5, and 7).

The examiner notes that **Suzuki** teaches **"a procedure to cause the computer to store font information indicating generation information in a first storage"** as "The status field 80 depicts status of progress in designing each of the parts" (Column 9, lines 62-63). The examiner further notes that status information fonts of Suzuki each have a font letter designated to concept stage (see c), a designing stage (see d), and a checking CAD figure (see f). The examiner further notes that **Suzuki** teaches **"a procedure to cause the computer to store the generation information of the file information in a third storage"** "The status field 80 depicts status of progress in designing each of the parts" (Column 9, lines 62-63). The examiner further notes that status information fonts of Suzuki each have a font letter designated to concept stage (see c), a designing stage (see d), and a checking CAD figure (see f). The examiner further notes that **Suzuki** teaches **"a control procedure to cause the computer to**

refer to the generation information stored in the third storage in response to an instruction to display generation information of target file information" as "The parts configuration field 81 depicts a part configuration tree representative of the hierarchical association of the items and parts" (Column 9, lines 64-67). The examiner further notes that Figure 7 of **Suzuki** clearly shows a hierarchical tree structure displaying the relationships amongst the various parts of the CAD product.

Suzuki does not explicitly teach:

D) a procedure to cause the computer to store icon data indicating file information in a second storage; and

E) a control procedure to cause the computer to create and display the icon data related to the generation information to be displayed by combining the font information stored in the first storage and the icon data stored in the second storage.

Weinberg, however, teaches **"a procedure to cause the computer to store icon data indicating file information in a second storage"** as "A recursive layout method is then applied which uses the parent-child node relationships, as such relationships exist within the tree, to spatially position the nodes (represented as respective icons within the map)" (Column 2, lines 37-41) and "As generally illustrated by FIGS. 3 and 4, different icons are used to represent the different URL types when the nodes are viewed in a sufficiently zoomed-in mode" (Column 8, lines 51-53, Figures 3-4) and **"a control procedure to cause the computer to create and display the icon data related to the generation information to be displayed by combining the font information stored in the first storage and the icon data stored in the second**

storage" as "A recursive layout method is then applied which uses the parent-child node relationships, as such relationships exist within the tree, to spatially position the nodes (represented as respective icons within the map)" (Column 2, lines 37-41), "As generally illustrated by FIGS. 3 and 4, different icons are used to represent the different URL types when the nodes are viewed in a sufficiently zoomed-in mode" (Column 8, lines 51-53, Figures 3-4), and "FIG. 21 illustrates a screen display...can selectively display the following: new URLs and links, modified URLs, deleted URLs and links, and unmodified URLs and links" (Column 30, lines 28-38).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Weinberg's** would have allowed **Suzuki's** to provide a method for improving graphical navigation through the visualization of icons, as noted by **Weinberg** (Column 1, lines 46-60).

Regarding claim 17, **Suzuki** further teaches a computer-readable storage medium comprising:

A) an input procedure to cause the computer to detect an input to the computer, including the instruction (Suzuki, Column 7, lines 65-67-Column 8, lines 1-11, Column 9, lines 50-54, Column 10, lines 50-61, Figure 1); and

B) said control procedure causing the computer to display the relationships of selected icon data with emphasis when the input controller detects an input selecting the

selected icon data from the displayed icon data (Suzuki, Column 9, lines 64-67-Column 10, lines 1-9, Figure 7).

The examiner notes that **Suzuki** teaches **"an input procedure to cause the computer to detect an input to the computer, including the instruction"** as "the CAD system 3 is composed of a main system 3-1 and an input output unit 3-2...to produce a part drawing data on parts included in automobiles in response to operation of the user" (Column 7, lines 65-67-Column 8, lines 1-4, Figure 1). The examiner further notes that **Suzuki** teaches **"said control procedure causing the computer to display the relationships of selected icon data with emphasis when the input controller detects an input selecting the selected icon data from the displayed icon data"** as "The parts configuration field 81 depicts a part configuration tree representative of the hierarchical association of the items and parts" (Column 9, lines 64-67). The examiner further notes that Figures 3A-3B and 5 of **Suzuki** clearly show tables that depict relationships among automobile parts within a greater system. The examiner further notes that it is common knowledge that hierarchical trees expand/collapse when users clicks on various twistie icons to view a complete branch.

Regarding claim 18, **Suzuki** further teaches a computer-readable storage medium comprising:

A) wherein the unit displays the relationships of the file information corresponding to the icon data by lines connecting related icon data (Suzuki, Column 9, lines 64-67-Column 10, lines 1-9, Figure 7).

The examiner notes that **Suzuki** teaches **"wherein the control procedure causes the computer to display the relationships of the file information corresponding to the icon data by lines connecting related icon data"** as "The parts configuration field 81 depicts a part configuration tree representative of the hierarchical association of the items and parts" (Column 9, lines 64-67). The examiner further notes that Figure 7 of **Suzuki** clearly shows lines that relate various parts in a tree structure.

Regarding claim 20, **Suzuki** further teaches a computer-readable storage medium comprising:

A) wherein said computer program further comprises: a procedure to cause the computer to acquire a CAD program and/or the file information via one or more networks (Suzuki, Column 3, lines 59-67-Column 4, lines 1-13, Figure 1).

The examiner notes that **Suzuki** teaches "wherein said computer program further comprises: a procedure to cause the computer to acquire a CAD program and/or the file information via one or more networks" as "Conventional computer systems, such as workstations...are interactively connected to each other through the network 5" (Column 3, lines 62-67, Figure 1).

8. Claims 4, 9, 14, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Suzuki et al.** (U.S. Patent 7,047,237) and in view of **Weinberg et al.**

(U.S. Patent 6,144,962) as applied to claims 1-3, 5-8, 10-13, 15-18, and 20 and further in view of **Miller et al.** (U.S. Patent 6,661,437).

9. Regarding claim 4, **Suzuki** and **Weinberg** do not explicitly teach a system comprising:

A) wherein a kind, width and color of the lines connecting the icon data are set differently for each generation.

Miller, however, teaches "**wherein a kind, width and color of the lines connecting the icon data are set differently for each generation**" as "In addition, both menu entry and exit points and previously selected menu items are identified (e.g., by dashed lines or dashed features or by highlighting, coloring, shading including three dimensional shading, or hatching" (Column 5, lines 20-23).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Miller's** would have allowed **Suzuki's** and **Weinberg's** to provide a method for improving the ability for users to readily see the menu navigation of hierarchical tree structures, as noted by **Miller** (Column 5, lines 24-25).

Regarding claim 9, **Suzuki** and **Weinberg** do not explicitly teach a system comprising:

A) wherein a kind, width and color of the lines connecting the icon data are set differently for each generation.

Miller, however, teaches "**wherein a kind, width and color of the lines connecting the icon data are set differently for each generation**" as "In addition, both menu entry and exit points and previously selected menu items are identified (e.g., by dashed lines or dashed features or by highlighting, coloring, shading including three dimensional shading, or hatching" (Column 5, lines 20-23).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Miller's** would have allowed **Suzuki's** and **Weinberg's** to provide a method for improving the ability for users to readily see the menu navigation of hierarchical tree structures, as noted by **Miller** (Column 5, lines 24-25).

Regarding claim 14, **Suzuki** and **Weinberg** do not explicitly teach a computer-readable storage medium comprising:

A) wherein a kind, width and color of the lines connecting the icon data are set differently for each generation.

Miller, however, teaches "**wherein a kind, width and color of the lines connecting the icon data are set differently for each generation**" as "In addition, both menu entry and exit points and previously selected menu items are identified (e.g., by dashed lines or dashed features or by highlighting, coloring, shading including three dimensional shading, or hatching" (Column 5, lines 20-23).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching

Miller's would have allowed **Suzuki's** and **Weinberg's** to provide a method for improving the ability for users to readily see the menu navigation of hierarchical tree structures, as noted by **Miller** (Column 5, lines 24-25).

Regarding claim 19, **Suzuki** and **Weinberg** do not explicitly teach a computer-readable storage medium comprising:

A) wherein a kind, width and color of the lines connecting the icon data are set differently for each generation.

Miller, however, teaches "**wherein a kind, width and color of the lines connecting the icon data are set differently for each generation**" as "In addition, both menu entry and exit points and previously selected menu items are identified (e.g., by dashed lines or dashed features or by highlighting, coloring, shading including three dimensional shading, or hatching" (Column 5, lines 20-23).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Miller's** would have allowed **Suzuki's** and **Weinberg's** to provide a method for improving the ability for users to readily see the menu navigation of hierarchical tree structures, as noted by **Miller** (Column 5, lines 24-25).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 6,557,002 issued to **Fujieda et al.** on 29 April 2003. The subject matter disclosed therein is pertinent to that of claims 1-20 (e.g., methods to view varying versions of parts in a CAD system efficiently).

U.S. Patent 6,944,515 issued to **Nakajima et al.** on 13 September 2005. The subject matter disclosed therein is pertinent to that of claims 1-20 (e.g., methods to view varying versions of parts in a CAD system efficiently).

U.S. PGPUB 2002/0080194 issued to **Fujieda et al.** on 27 June 2002. The subject matter disclosed therein is pertinent to that of claims 1-20 (e.g., methods to view varying versions of parts in a CAD system efficiently).

U.S. Patent 6,304,790 issued to **Nakamura et al.** on 16 October 2001. The subject matter disclosed therein is pertinent to that of claims 1-20 (e.g., methods to view varying versions of parts in a CAD system efficiently).

U.S. Patent 7,016,922 issued to **Sahoo** on 21 March 2006. The subject matter disclosed therein is pertinent to that of claims 1-20 (e.g., methods to view varying versions of parts in a CAD system efficiently).

U.S. Patent 6,760,735 issued to **Rusche** on 06 July 2004. The subject matter disclosed therein is pertinent to that of claims 1-20 (e.g., methods to view varying versions of parts in a CAD system efficiently).

U.S. PGPUB 2003/00218634 issued to **Kuchinsky et al.** on 27 November 2003. The subject matter disclosed therein is pertinent to that of claims 1-20 (e.g., methods to view varying versions of parts in a CAD system efficiently).

U.S. Patent 4,862,376 issued to **Ferriter et al.** on 29 August 1989. The subject matter disclosed therein is pertinent to that of claims 1-20 (e.g., methods to view varying versions of parts in a CAD system efficiently).

U.S. Patent 6,895,560 issued to **Das** on 24 May 2005. The subject matter disclosed therein is pertinent to that of claims 1-20 (e.g., methods to view varying versions of parts in a CAD system efficiently).

The examiner notes that the **Fujieda** patent (U.S. Patent 6,577,002 displays analogous subject matter that is commonly owned by the assignee of the instant application.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mahesh Dwivedi whose telephone number is (571) 272-2731. The examiner can normally be reached on Monday to Friday 8:20 am – 4:40 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Vo can be reached (571) 272-3642. The fax number for the organization where this application or proceeding is assigned is (571) 273-8300.

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Mahesh Dwivedi

Patent Examiner

Art Unit 2168

September 12, 2006

Leslie Wong

Primary Examiner